

Core Focus  
Annual Report



Fall  
Protection

Portable  
Gas Detection

Supplied-Air  
Respirators

Fixed Gas &  
Flame Detection

Industrial  
Head Protection

## Our Vision

To be the world's leading provider of safety solutions that protect workers when life is on the line. We pursue this vision with an unsurpassed commitment to integrity, customer service and product innovation that creates exceptional value for all MSA stakeholders.

## Business of MSA

MSA is in the business of developing, manufacturing and selling innovative products that enhance the safety and health of workers throughout the world. Critical to MSA's mission is a clear understanding of customer processes and safety needs. MSA dedicates significant resources to research which allows the company to develop a keen understanding of customer safety requirements for a diverse range of markets, including the fire service, law enforcement, construction, public utilities, mining, chemical, petroleum, HVAC, hazardous materials remediation, military, and retail. MSA's principal products, each designed to serve the needs of these target markets, include

respiratory protective equipment, thermal imaging cameras, gas and flame detection instruments, ballistic helmets, as well as head, eye, face, hearing, and fall protection products.

MSA was founded in 1914 by John T. Ryan and George H. Deike, two mining engineers who had firsthand knowledge of the terrible human loss that was occurring in underground coal mines at that time. Their knowledge of the mining industry provided the foundation for the development of safety equipment to better protect underground miners. While the range of markets served by MSA has expanded greatly over the years, the founding philosophy of understanding customer safety needs and designing innovative safety equipment solutions remains unchanged.

MSA is headquartered in Cranberry Township, Pennsylvania, with operations employing 5,300 associates throughout the world. A publicly held company, MSA's stock is traded on the New York Stock Exchange under the symbol MSA.

# OUR MISSION

That men and women may work in safety  
and that they, their families and their communities  
may live in health throughout the world.

## About the Cover

A key element of MSA's Corporate Strategy focuses on investing in and growing the "Core of MSA" – in other words concentrating on and investing in the "Core Products" of MSA that provide a distinct and sustainable competitive advantage. Shown on the cover are our five Core Product Groups: **Fall Protection; Portable Gas Detection and Sensors; Supplied-Air Respirators; Fixed Gas and Flame Detection; and Industrial Head Protection**. In essence, these Core Products represent a set of products, capabilities, channels, and geographies that drive growth at MSA, provide economic value for our company and shareholders, and best leverage our expertise to keep customers safe. Accordingly, they receive the highest levels of investment and resources at MSA, because they promise the greatest return for all.



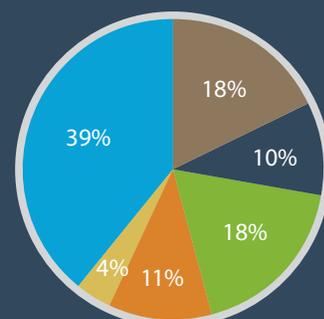
## FINANCIAL HIGHLIGHTS

MSA's ongoing commitment to investing in core products and focus on managing costs helped generate a strong finish in 2011.

	2009	2010	2011
<b>FOR THE YEAR</b> (thousands, except per share)			
Net sales	\$ 909,991	\$ 976,631	\$ 1,173,227
Net income	\$ 43,295	\$ 38,104	\$ 69,852
Basic earnings per common share	\$ 1.21	\$ 1.06	\$ 1.91

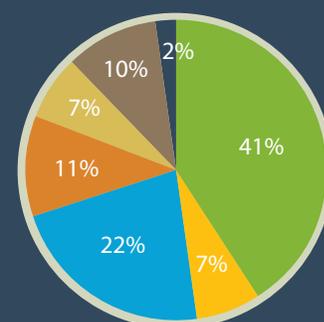
	2009	2010	2011
<b>AT YEAR END</b> (thousands)			
Total assets	\$ 875,228	\$ 1,197,188	\$ 1,115,052
Working capital	\$ 265,575	\$ 295,648	\$ 287,079
Shareholders' equity	\$ 436,616	\$ 451,368	\$ 433,666
Common shares outstanding	35,973	36,520	36,693

ANNUAL SALES  
BY CORE PRODUCT GROUP



- Supplied-Air Respirators
- Industrial Head Protection
- Fixed Gas & Flame Detection
- Portable Gas Detection
- Fall Protection
- Other Products

ANNUAL SALES  
BY REGION



- United States
- Mexico & Canada
- Europe
- Asia & Pacific Rim
- Africa
- South America
- Middle East & India





# I am pleased to report that in 2011 MSA achieved its highest annual net sales in our 97-year history.

More customers, in more countries around the world, are placing their trust in the MSA brand. In 2011, this resulted in customers choosing to purchase nearly \$1.2 billion in MSA products.

The phrase “choosing to purchase” is significant, because our 2011 sales actually represent an aggregation of thousands of individual decisions – single instances of safety professionals carefully weighing their options and purposefully selecting MSA to protect them and their co-workers on the job. Each decision showed confidence that the MSA offering was the one that would help keep their people safe, whether they be oil workers on an offshore rig, firefighters bravely entering a burning building, construction professionals working atop scaffolding hundreds of feet above the earth, miners laboring hundreds of feet below it, or any of the other millions of men and women around the globe who depend on MSA to protect them each and every day.

There is no doubt that, in addition to the skill and dedication of our 5,300 associates worldwide, part of what helped drive each of these customers to make their decision was our company’s relentless pursuit of our Corporate Strategy. And a key part of this strategy is to focus on our core strengths as we advance our mission to protect workers around the world.

While every product we produce provides value to our company and our customers, in 2011 we placed a special focus on investing in and further improving the development, manufacturing, marketing, and distribution of five Core Product families: Supplied-Air Respirators, Industrial Head Protection, Portable Gas Detection Instruments and Sensors, Fixed Gas and Flame Detection Systems, and Fall Protection products. Our cross-functional, cross-geographic teams worked tirelessly to make these products more durable, more effective, and engineered with innovative features that not only delight our customers, but help them reduce total cost of ownership, thereby providing even greater value to those who choose MSA.

It's been said on many different occasions that "wherever people need to be protected, MSA will be there." In 2011 that expression took on greater significance for MSA as another factor in our success was our ability to advance a second pillar of our strategy – Investing In and Growing In Emerging Markets.

Indeed, we are earning business from more customers in more countries than ever before. In fact, in the pages that follow, you can read about some of our more recent successes in these key growth markets. They are all great stories, and they represent just the tip of the iceberg when it comes to broadening MSA's reach in these and other emerging markets around the globe.

### A Sampling of 2011 Success

Overall, I believe 2011 for MSA will be remembered as a year in which we strengthened our company and our brand, stayed true to our strategy, and established a new foundation for MSA that will serve us well in the years ahead. Indeed, 2011 was a year with many highlights for MSA, and I'd like to take the opportunity to share a few of them with you now.

- Gross margins in North America improved significantly over last year, due to such factors as improved sourcing and strategic pricing initiatives.
- Income from our Asia Pacific Zone, which includes China, Japan and Australia, grew by 400 percent in 2011.
- Our transformational reorganization efforts in Europe gained solid traction and showed positive results in a still challenging environment. Operating income in Western Europe increased 72 percent over 2010 levels. And in the Middle Eurasian countries, we achieved double-digit growth in three out of our five Core Product groups in 2011, with Fixed Gas and Flame Detection sales up 41 percent compared to 2010.

- A big part of our effort in Europe involves expanding the number of distributors and channel partners who carry our products. We added 158 new channel partners in 2011, which is helping us to reach more customers in more industries.



As part of the company's emerging markets strategy, MSA's new office in Moscow, shown at left, provides important access and entrée into one of the world's largest oil, gas and petrochemical markets.

- We planted a new MSA flag in Moscow and opened two other regional offices in Russia. We see this as an important strategic move for MSA as Russia is now the world's largest oil producer and the world's second largest natural gas producer. MSA is now better positioned to help ensure that the thousands of oil and gas workers in this region are working in an environment of optimum safety.
- The global fire service market, long a key business segment for MSA, has been weak in recent years due to strained municipal budgets in the U.S. and ongoing economic uncertainty and related austerity measures elsewhere around the world. However, that segment started to come back a bit in 2011. In particular, one key win in Latin America (highlighted on page 7) was a follow-up two-year contract to supply 4,000 FireHawk® M7 Air Masks and related equipment to the Junta Nacional de Bomberos (JNB) of Chile. The JNB is an institution comprised of more than 37,000 volunteer firefighters and 307 fire departments throughout the country. We also had great competitive fire service wins in Halifax, Nova Scotia; Fresno, California; and with several other major departments in the U.S. But lastly, a particularly gratifying win for us was being selected as the Air Mask supplier for the Pittsburgh Bureau of Fire (PBF), located near our corporate headquarters, after a rigorous and thorough evaluation process.

City of Pittsburgh Mayor Luke Ravenstahl, immediate right, visited MSA's Murrysville, Pa., facility with Pittsburgh Public Safety Director Mike Huss and Pittsburgh Firefighters Local No. 1 President Joe King, far right, in recognition of MSA's \$2 million contract win for Self-Contained Breathing Apparatus (SCBA).



- Another key element of our Corporate Strategy drives us to Achieve Operational Excellence, and that means optimizing operations and lowering costs at every possibility. In 2011, our success in this area was significant. We eliminated some 18,000 part numbers and reduced our inventories by more than \$3 million. We likewise made meaningful strides in delivery performance in product lines and geographies around the world. And our efforts to optimize our global sourcing are on track to provide additional ongoing benefits, including greater security of supply.

As an expansion of MSA's flagship V-Gard® hard hat, MSA debuted a selection of V-Gard accessories in 2011, including face shields and visors, developed in response to customer needs.



- MSA's product innovation, the lifeblood of our company, was especially successful in 2011, with patent applications increasing 230 percent compared to our base year of 2009. Chief among these successes was the Altair® 5X series of portable multi-gas detectors with XCell® Sensors – our 2011 Product of the Year. Building even further on last year's breakthrough launch of the Altair 4X unit, the new Altair 5X Detector has increased sales by 48 percent over the previous generation Altair 5, while delivering greatly improved gross margins.
- Other product launches in a very busy year include:
  - The SUPREMA® Touch controller for fixed gas detection systems, built on a priority basis to successfully meet changing standards in China;
  - The PrimaX IR, a lower price point infrared fixed gas detection system designed especially for cost-conscious, but performance-demanding emerging markets;

- Our Workman Twin Leg Personal Fall Limiter, an innovation that provides continuous fall protection as workers at heights move from place to place; and
- An expansion of our flagship V-Gard® head protection line to include a selection of accessories such as winter liners, face shields and visors, and the industry's first "Debris Control" feature, developed in response to customer needs.
- We successfully divested our ballistic vest business, giving us greater resources and ability to further focus upon our Core Product areas.
- We raised our dividend to more than \$1 per share annually, the highest level in our history, providing our shareholders with a return of more than 3.1 percent as of the end of the year.
- We successfully upgraded our SAP system to the state-of-the-art ECC 6.0 platform. ECC 6.0 positions IT to support our increasing globalization and even further integration of our supply chains.
- Our largest North America distribution partner, Airgas, recognized MSA as their top-performing "Supplier of the Year" for excellence in customer support.
- The *Pittsburgh Post-Gazette* named MSA a "Top Workplace" in 2011, and our own internal metrics, measured around the world, identified a similar culture of improving employee engagement and satisfaction. For example, a survey sent to all MSA associates in 14 languages showed a 10 percent increase in favorable employee engagement levels since the last time we conducted the survey, a level higher than global manufacturing industry norms.



**Pittsburgh Post-Gazette®**  
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MSA launched several new products in 2011, including, from left to right, the Workman Twin Leg Personal Fall Limiter, the Altair® 5X series of portable multi-gas detectors with XCell® Sensor technology, and the SUPREMA® Touch controller for fixed gas detection systems.



Partnering with a team from TOTAL Oil & Gas - Indonesia, a team of General Monitors associates conducted an on-site trial of the Gassonic Ultrasonic Gas Leak Detector to ensure their network of unmanned wellhead facilities in the shallow waters near the city of Balikpapan are properly monitored for gas leaks. Balikpapan is a seaport city on the eastern coast of the island of Borneo, Indonesia, a resource-rich region well known for its timber, mining and petroleum export products.

### The year after “The Year of General Monitors”

As you may recall, in my letter in last year’s annual report, I referred to 2010 as “The Year of General Monitors” – a year in which we made the largest acquisition in our company’s long history. Clearly, with the integration of our two companies now complete, combining the capabilities and resources of MSA and General Monitors has now established us as the global leader in Fixed Gas and Flame Detection (FGFD) technology.

In short, our FGFD line has become one of our hottest and most active Core Product areas. For instance, in 2011, the General Monitors’ product line achieved the highest sales in its 50-year history, with revenues exceeding \$86 million, besting its prior sales record by almost 15 percent. Further, the profit contribution of those sales exceeded our most optimistic expectations.

Those sales and profits are driven by strategy and innovation. Working together, MSA and General Monitors launched six cross-branded product platforms in 2011, including the GM PA4000/MSA Chemgard® instrument and the MSA Flamegard® 5 Flame Detection System. Cross-branded products are the products one company has that effectively meet an unmet need within the distribution channel of the other. Very simply, they represent an efficient way for MSA and our customers to quickly benefit from the synergies of our two organizations.

### Well positioned for a great 2012

While no one has a crystal ball, I am cautiously optimistic that 2012 will be another strong year for MSA. While there are many market influences outside of our control, I believe MSA is well positioned for the future.

By following our Corporate Strategy, we are focusing on our strongest products, we are lowering our operating costs, we are working hard in profitable new markets, and, overall, we are taking the actions I believe will continue to lead to success for MSA.

In closing, I’d like to thank each of our more than 5,300 associates around the world, our Board of Directors and our Executive Leadership Team for the outstanding efforts that helped make this a record year for MSA. I’d like to thank our shareholders for your continuing confidence in our company.

And lastly, I want to thank our growing ranks of distributors and customers around the world for “choosing to purchase” MSA and for placing their trust in our hands. It’s a responsibility we take very seriously, and one we will work hard to earn each and every day throughout the coming year, and long beyond.

Sincerely,

**William M. Lambert**  
President and Chief Executive Officer



# A Keen Focus on Emerging Markets – Helping Drive MSA’s Success in 2011

In the very early years of MSA, the company predominantly served customers in the United States. Today, however, more than half of MSA’s business is derived from outside the U.S., as we help protect people throughout the world.

Our efforts to increase MSA’s presence in growing, emerging markets have been a key element of the company’s growth for decades. For this reason, in 2008, MSA’s Corporate Strategy charted a new long-range course for the company that included placing an even greater focus on growing the MSA brand in emerging markets of the world. In particular, these markets include Latin America, Eastern Europe and the Russian CIS region, China, the Middle East, India, and in Southeast Asia, with an emphasis on key industrial markets such as oil, gas and petrochemicals, mining, and construction.

As an essential element of our Corporate Strategy, MSA’s focus on emerging markets was indeed an important driver behind our record sales in 2011, with, for example, sales in Asia up 25 percent year over year, and sales in Latin America up 28 percent. During 2012 and beyond, we plan to continue to make investments in these regions as we advance MSA’s strong positions in these critical markets.

Here, briefly, are the stories of four global successes in 2011, representative of the many accomplishments MSA achieved in emerging markets over the past year.



CHILE



## In Chile, Protecting the Men and Women of the Chilean National Firefighters Council

The fire service is a key customer segment for MSA all around the world. Although recently weakened in some regions due to economic challenges, this market began to show signs of renewed strength in 2011. This was especially true in Latin America, and perhaps no other 2011 “win” better symbolizes MSA perseverance than our winning the confidence of the Chilean National Firefighters Council.

The Chilean National Firefighters Council, a collection of more than 300 fire departments throughout the country, had been served exclusively by a safety products competitor for decades. Nevertheless, MSA’s sales team prepared a very competitive bid emphasizing the many benefits of a relationship with MSA: an industry-leading Self-Contained Breathing Apparatus (SCBA) design with chemical-biological-radiological-nuclear protection; ongoing training; and access to a responsive service organization located “in country,” with engineering expertise to meet the specific needs of fire service customers.

In January, the Council announced that MSA had been granted an order for 1,000 FireHawk® M7 Air Masks. Another request for proposal later in the year was met with an even more challenging situation, with the incumbent competitor aggressively fighting for the business.

However, having already seen first hand the advantages of MSA’s products and service, the Council once again selected MSA, purchasing an additional 4,000 Air Masks, as well as fire helmets and related equipment.

No wonder that MSA Chairman John Ryan III, who helped to establish MSA’s presence in Chile back in the 1970s, referred to this as a “breakthrough order.” Not only does it demonstrate the value of perseverance and the ultimate reward of a superior offering, it positions MSA well for future opportunities in the emerging Latin America region and elsewhere throughout the world.



In 2011 MSA was awarded several contracts for a total of 5,000 Self-Contained Breathing Apparatus from the Chilean National Firefighters Council. Because of their confidence in MSA, they placed an order for helmets and other related equipment as well.



## In Kuwait, a “Re-Bid” Highlights Synergy of General Monitors Acquisition

We have spoken a great deal over the past year about the synergies of MSA’s acquisition and subsequent integration of General Monitors, with the complementary nature of our respective Fixed Gas and Flame Detection products giving us a far broader range of products than either company had before. Perhaps nowhere was this new capability better illustrated than it was in Kuwait in early 2011.

request for proposal, announced before the MSA/GM merger, led both organizations to place bids independently, competing against each other and against other providers.

Although both bids were reasonable, each group conceded that neither was spectacular, with each relying substantially on third-party offerings to fill in gaps in their respective product lines. When MSA and General Monitors joined forces, a new bid was submitted by GM to KOC and SKEC. This one combined broader offerings to better meet the specifications of the contract, providing higher quality MSA and General Monitors products for nearly every need.

The expanded product portfolio made the difference. A contract valued at \$1.2 million was awarded to GM, giving MSA and General Monitors its first joint sales success. In fact, the customer was so satisfied with the new systems that an additional \$700,000 order was placed shortly thereafter. The outstanding cooperation of two former competitors, now colleagues, quickly accelerated with many more sales successes throughout 2011, in a wide range of emerging, as well as more mature markets.

A \$1.2 million contract from the Kuwait Oil Company – for the support of a new oil and gas “booster station” – marked the first joint sales success of the MSA and General Monitors acquisition.



The Kuwait Oil Company (KOC), in partnership with SK Engineering and Construction (SKEC) of South Korea, was in the process of building a new oil and gas “booster station” in Northern Kuwait. As part of this project, there were specific needs for a wide range of gas and flame detection systems to protect its workers and contractors on-site. The original



# In Mexico, Confined Space Expertise Helps Protect Steel Workers

While not officially on MSA's list of emerging markets, Mexico fits that bill in many ways for our North America business segment. With the tariff eliminations of NAFTA and geographic continuity with the balance of North America, Mexico is experiencing dramatic growth in its manufacturing sector. In fact, MSA was just one of many American and Canadian companies to build new manufacturing facilities in the country in recent years, with our state-of-the-art 77,000 square foot plant (shown above) opening in Querétaro in late 2007.

With Mexico's expanding industrial base comes an increased need for safety equipment for workers. One of the many customers served by MSA Mexico in 2011 was steel producer ArcelorMittal, whose 4 million tons per annum facility in the port city of Lázaro Cárdenas makes it the largest manufacturer of steel in the country.

MSA has long served ArcelorMittal facilities in the U.S. and Europe, but this was our first opportunity to do so in Mexico. The driver: the launch of the facility's confined space entry program.

Large industrial facilities often have a large number of confined space environments. Accordingly, there is a need to keep workers safe in any eventuality. This means a need for products representing four of MSA's five Core Product groups – Industrial Head Protection, Supplied-Air

Respiratory Protection, Portable Gas Detection, and Fall Protection as workers, for example, descend steep ladders into below-ground confined spaces.

And, perhaps just as importantly, it means training workers and staff not only in the proper use of each piece of equipment, but also in safe practices while performing work in any kind of confined space to ensure full compliance with all applicable standards.

MSA provides expertise in all of these areas, and our ability to provide outstanding training and confined space audits, alongside state-of-the-art products, won us ArcelorMittal Lázaro Cárdenas' business in 2011. It is the kind of value-added service that is helping MSA gain new business in Mexico, as well as in other markets throughout the world.



MSA's value-added expertise continues to earn new business around the world. In 2011, MSA's confined space training program helped win business from ArcelorMittal. Shown at left is an on-site confined space training session conducted by MSA Mexico.



★  
CHINA

## In China, Enhancing Worker Safety in the Growing Oil and Gas Market

China's oil, gas and petrochemical industry is booming, and MSA is right there to support the industry's workers to help ensure they work in optimum safety. In one key Core Product area – Fixed Gas and Flame Detection – MSA's sales in China grew by more than 30 percent in 2011, making China the third largest global market for these life-saving systems, right behind the U.S. and Germany.

One key customer for fixed gas and flame detection products in 2011 was the Sinopec Group, a state-owned petroleum and petrochemical enterprise. The oil and gas giant has numerous subsidiaries and a myriad of projects underway, and calls on MSA to provide safety support in operations throughout the vast country.

Many of the high-quality safety products used by Sinopec and other Chinese customers are manufactured at MSA's Suzhou facility, just outside of Shanghai. This state-of-the-art facility, opened in early 2009, is the only MSA factory that currently manufactures products from all five of MSA's Core Product lines, and ships many around the world.

For example, MSA's new PrimaX Gas Detection System, launched in 2011, ships to Europe and other countries globally, but is manufactured solely at the Suzhou facility. This innovative new product was co-developed by engineers at our Suzhou R&D Center working with colleagues in Berlin. Technology transferred to the plant under Project Magellan is helping ensure that all Suzhou operations are truly world class, and will continue to drive cost savings and profitability well into the future.

Opened in 2009, MSA's state-of-the-art facility in Suzhou, China is the only MSA factory that currently produces products representing each of MSA's Core Product lines.

